



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,875	11/26/2003	Gabriel Suci	EH-10756(02-683)	1260

34704 7590 09/08/2005

BACHMAN & LAPOINTE, P.C.
900 CHAPEL STREET
SUITE 1201
NEW HAVEN, CT 06510

EXAMINER

KERSHTEYN, IGOR

ART UNIT	PAPER NUMBER
----------	--------------

3745

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,875

Applicant(s)

SUCIU ET AL.

Examiner

Igor Kershteyn

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment dated 07/08/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5,7,9,11-13 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,5,7,9,11-13 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 07/08/2005 have been fully considered but they are not persuasive.

Claims 3, 5, 7, 9, 11-13, and 15-20 are pending. Claims 1, 2, 4, 6, 8, 10, and 14 have been cancelled.

Claims 3, 5, 7, 9, 11, 15-17 have been amended.

New claims 18-20 have been added.

In the Arguments Applicant generally stated that "New claim 18, as well as new claim 20, are allowable over the cited and applied references because none of the cited and applied references teaches or suggests a one-piece drum structure having the claimed turbine disk structure, the claimed integrally formed knife elements, and integrally formed flange." This statement is not agreed with because references to Ciokajlo (5,156,525) and Ledwith (4,483,054) both teach the embodiments mentioned above.

Claims 18 and 20 are product-by-process claims because they recite "turbine discs welded together" and the apparatus or structure claimed is identical to that described in the reference to Ciokajlo presented by the examiner and thus anticipated by the reference because patentability of a product does not depend on its method of production. See MPEP 2113.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 3, 7, 9, and 11-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ledwith (4,483,054).

In figures 1 and 2, Ledwith teaches a turbine structure for use in a gas turbine engine, comprising: a one piece drum rotor 50; said drum rotor including a plurality of turbine disks 80a,80b,80c,80d welded together and having a first diameter (not numbered) at a leading one 80a of said turbine disks and a second diameter (not numbered) at a trailing one 80d of said turbine disks wherein said first diameter is greater than said second diameter; said drum rotor 50 having a plurality of integrally formed knife elements (not numbered) and an integrally formed flange 60 for allowing said one-piece drum rotor 50 to be joined to an adjacent structure, said flange 60 being located near said leading one 80a of said turbine disks; and a plurality of turbine blades 74a-d attached to said one-piece drum rotor 50.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 3745

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5, 7 and 15-17, 18, and 20 are rejected under 35 U.S.C. 103(a) as being anticipated by Ciokajlo (5,156,525).

In figures 1-6, Ciokajlo teaches a turbine structure for use in a gas turbine engine, comprising: a one piece drum rotor 60; said drum rotor including a plurality of turbine disks 64,66,68 welded together and having a first diameter OD4 at a leading one 64 of said turbine disks and a second diameter OD6 at a trailing one 68 of said turbine disks wherein said first diameter is greater than said second diameter; said drum rotor 60 having a plurality of formed knife elements 82,84,86 and an integrally formed flange 60a for allowing said one-piece drum rotor 60 to be joined to an adjacent structure, said flange 60a being located near said leading one 80a of said turbine disks; and a plurality of turbine blades 74a-d attached to said one-piece drum rotor 50.

Ciokajlo does not teach a plurality of integrally formed knife elements.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the plurality knife edge elements of Ciokajlo integrally formed with the drum rotor because the use of a one piece construction instead of the structure disclosed by Ciokajlo would be merely a matter of obvious engineering choice. See MPEP 2144.04.V (B).

Note. Claims 18 and 20 are product-by-process claims because they recite "turbine discs welded together" and the apparatus or structure claimed is identical to that described in the reference to Ciokajlo presented by the examiner and thus

Art Unit: 3745

anticipated by the reference because patentability of a product does not depend on its method of production. See MPEP 2113.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact information

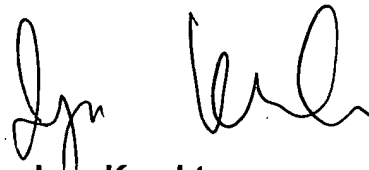
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kershteyn whose telephone number is **(571)272-4817**. The examiner can be reached on Monday-Friday from 8:00 a.m. to 4:30 p.m.

Art Unit: 3745

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached on **(571)272-4820**. The fax number is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308 0861.

IK
September 2, 2005



Igor Kershteyn
Patent examiner.
Art Unit 3745



EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

9/6/05